

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
25 August 2005 (25.08.2005)

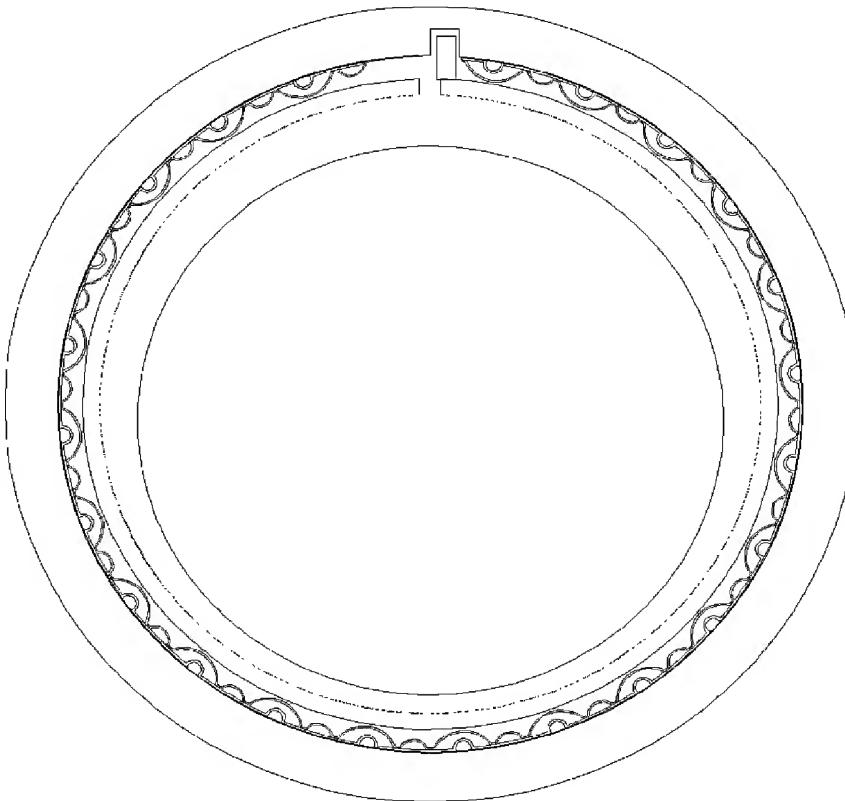
PCT

(10) International Publication Number  
**WO 2005/078294 A1**

- (51) International Patent Classification<sup>7</sup>: **F16C 32/06**
- (21) International Application Number: PCT/KR2005/000400
- (22) International Filing Date: 14 February 2005 (14.02.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
10-2004-0009869  
14 February 2004 (14.02.2004) KR
- (71) Applicant (for all designated States except US):  
**KTURBO, INC.** [KR/KR]; 256, Geumho-ri, Buyong-myeon, Cheongwon-gun, Chungbuk, 363-942 (KR).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): **LEE, Heonseok** [KR/KR] (KR).
- (74) Agent: **PARK, Wonyong**; 5 Floor, Shinwon Bldg., 823-14, Yeoksam 1-dong, Gangnam-gu, Seoul 135-933 (KR).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,

[Continued on next page]

(54) Title: RADIAL FOIL BEARING



(57) Abstract: The present invention provides a radial foil bearing for supporting a high-speed rotating shaft. The radial foil bearing comprises a top foil (1); a key (2) welded to a cut portion of the top foil; an inner bump coil (3) disposed outwards of the top foil, the inner bump being formed of a wider and higher bump and a narrower and lower bump alternately arranged; an outer bump foil (4) disposed outwards of the inner coil, the outer bump having a height lower than that of the narrower and lower bump of the inner bump foil; a bump sheet (5) for fixing the inner bump and the outer bump; and a bearing housing (6) disposed outwards of the bump sheet and having a key groove (7).



SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**Published:**

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*